US011918841B2

(12) **United States Patent**
Towley, III

(10) **Patent No.: US 11,918,841 B2**
(45) **Date of Patent: Mar. 5, 2024**

(54) **SET OF DUMBBELLS**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **17/822,096**

(22) Filed: **Aug. 24, 2022**

(65) **Prior Publication Data**

US 2022/0401787 A1 Dec. 22, 2022

Related U.S. Application Data

(63) Continuation of application No. 17/063,307, filed on Oct. 5, 2020, now Pat. No. 11,471,721, which is a continuation of application No. 15/837,699, filed on Dec. 11, 2017, now Pat. No. 10,792,530.

(51) **Int. Cl.**

A63B 21/075	(2006.01)
A63B 21/06	(2006.01)
A63B 21/072	(2006.01)
A63B 71/00	(2006.01)

(52) **U.S. Cl.**

CPC ***A63B 21/075*** (2013.01); ***A63B 21/0604*** (2013.01); ***A63B 21/0726*** (2013.01); ***A63B 21/0728*** (2013.01); ***A63B 71/0036*** (2013.01)

(58) **Field of Classification Search**

CPC A63B 21/075; A63B 21/0728; A63B 21/0604; A63B 21/0726; A63B 71/0036

See application file for complete search history.

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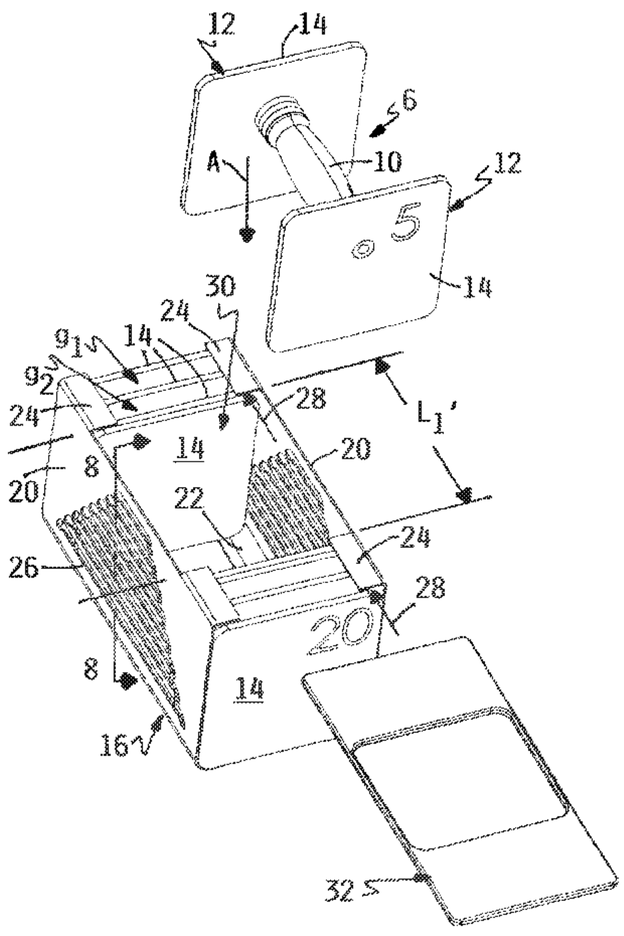
(57) **ABSTRACT**

A set of dumbbells comprises a plurality of dumbbells of different weights with the dumbbells having a common length. A plurality of adder weights is provided with each adder weight having a cavity that is sized to receive the common length of any one of the dumbbells. Any one of the dumbbells is dropped down into the cavity of any one of the adder weights. A slide retainer is then slid into a slideway on the any one adder weight to overlie the dumbbell and secure the dumbbell to the any one adder weight. The slide retainer has a window therein to allow a user to reach through the slide retainer and grip a hand grip of the dumbbell.

18 Claims, 6 Drawing Sheets



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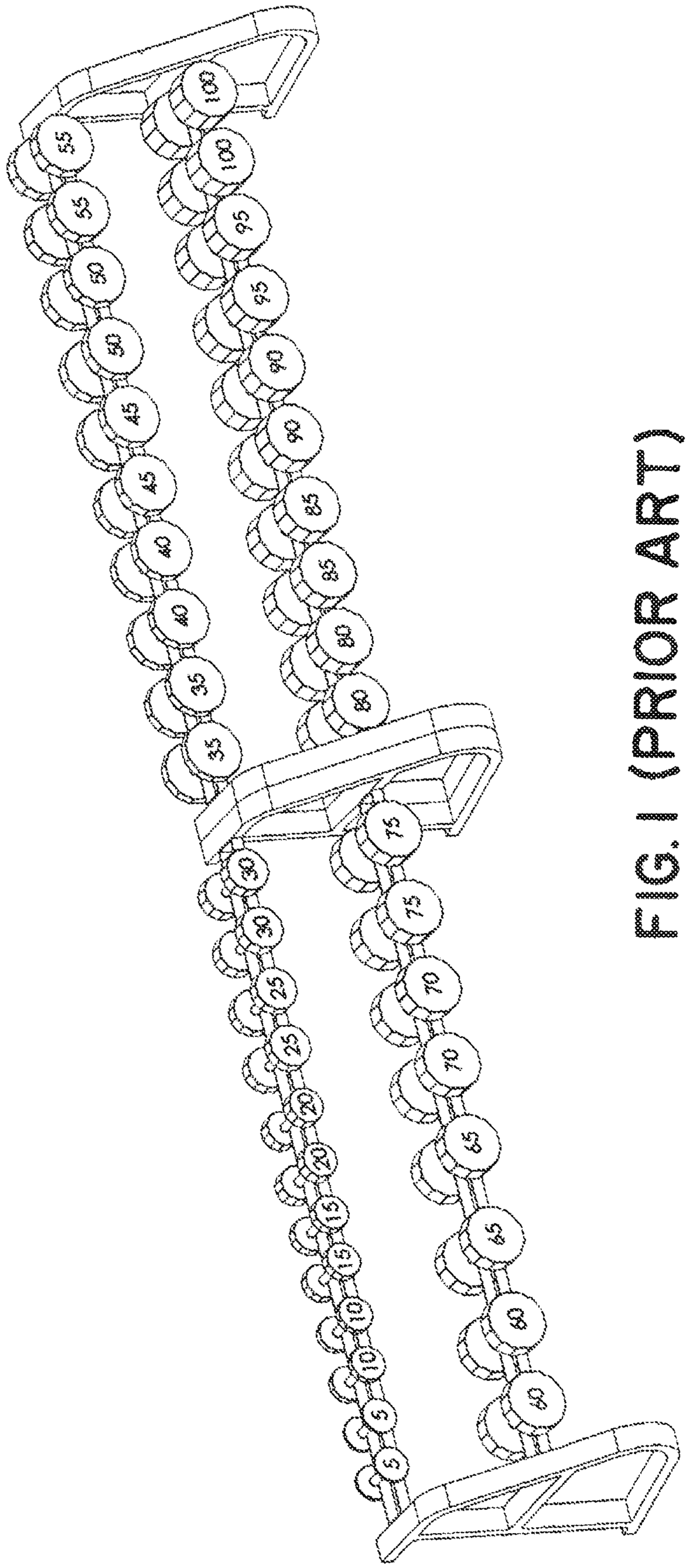


FIG. 1 (PRIOR ART)

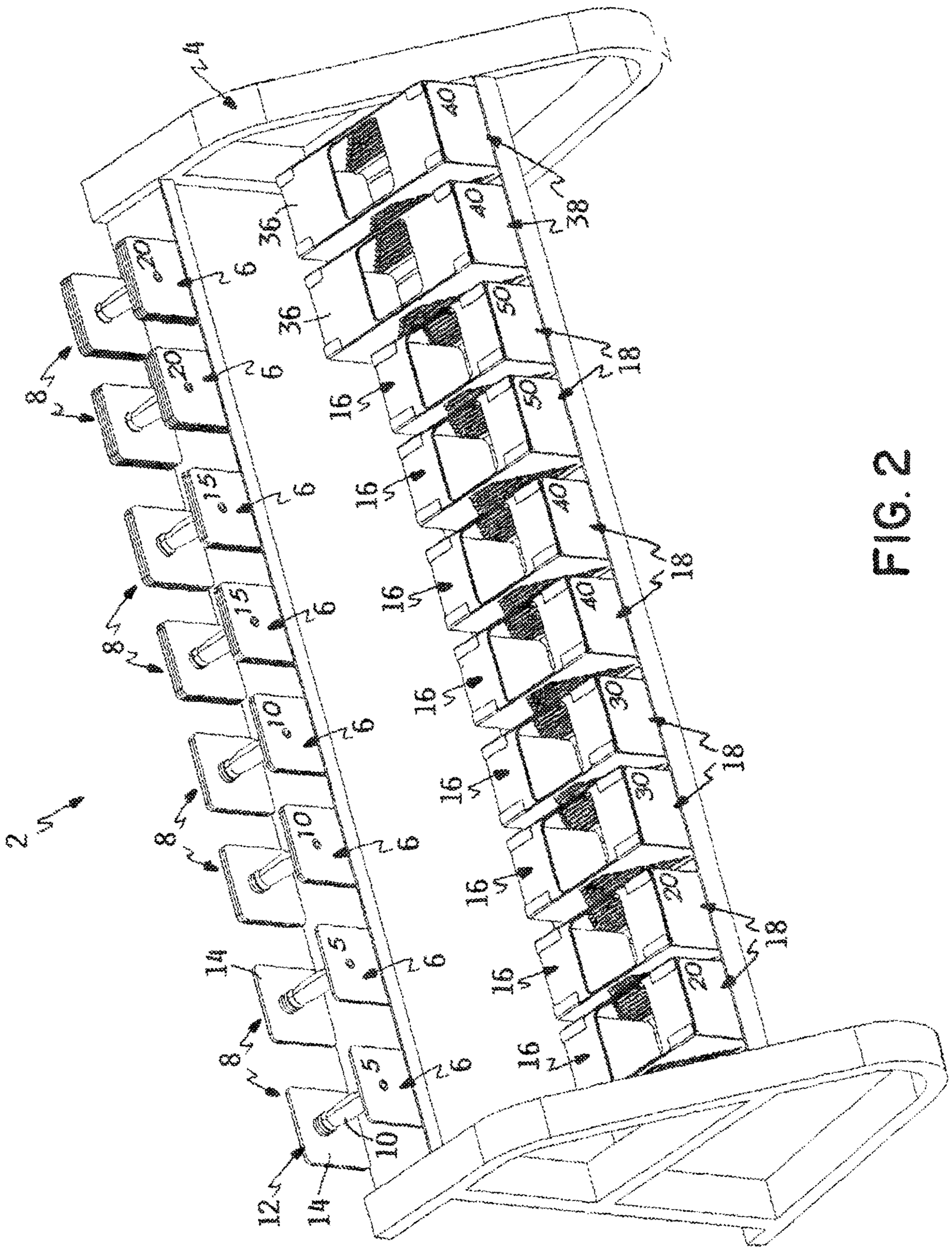


FIG. 2

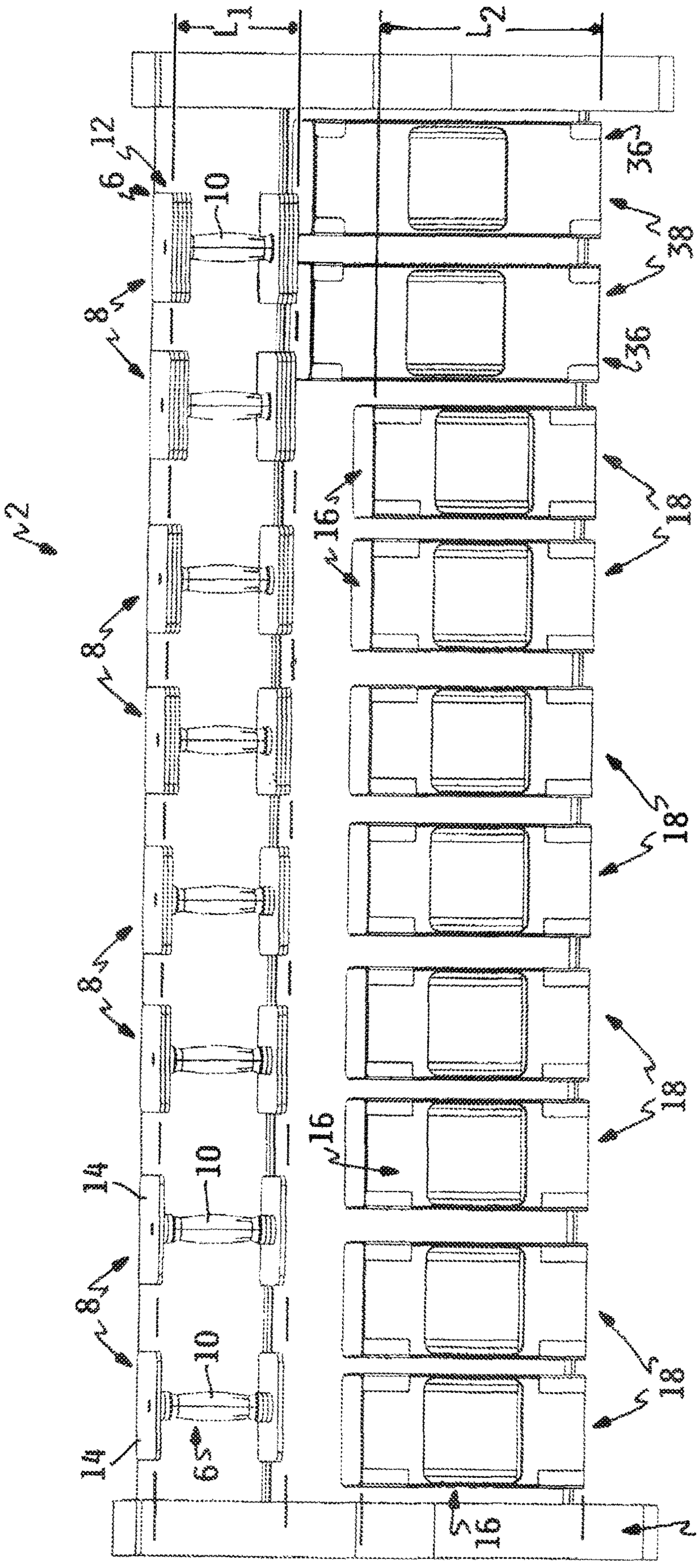


FIG. 3

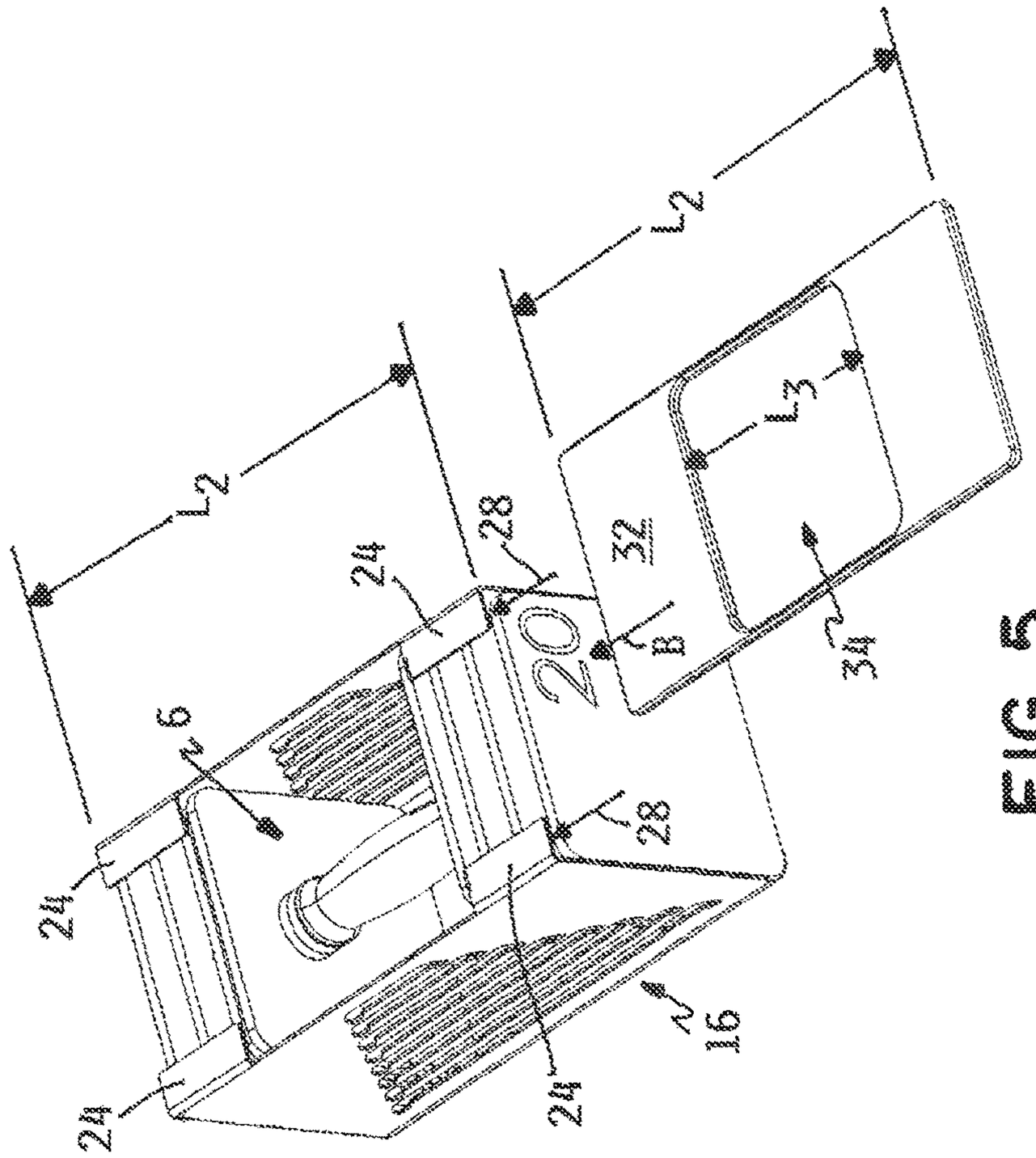
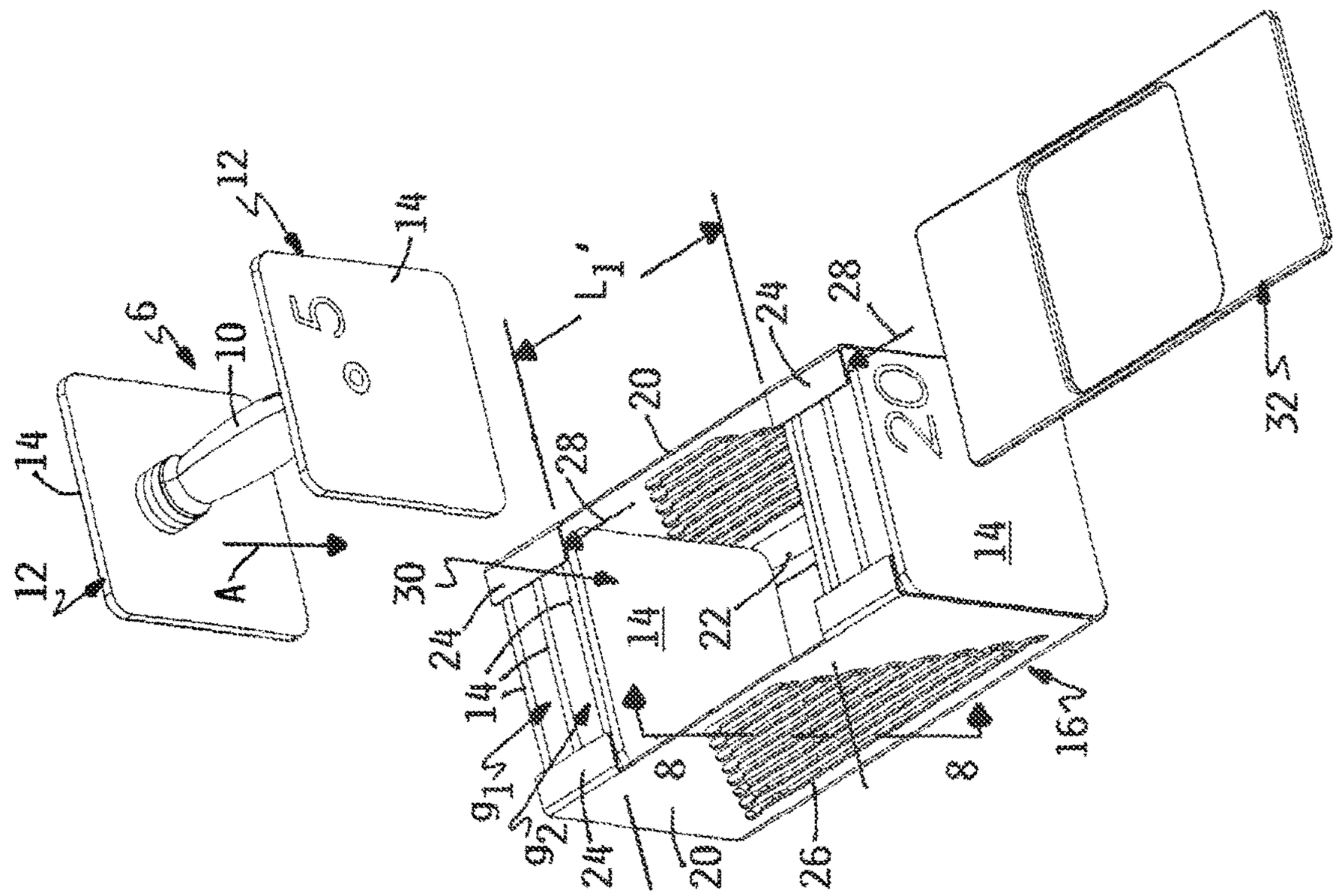

L2
L3
L2
28
24
32
B
34
20
6
24
28
24
16

FIG. 5


12
14
6
10
A
30
L1'
28
24
20
92
14
22
14
91
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92
24
20
26
8
16
32

FIG. 4

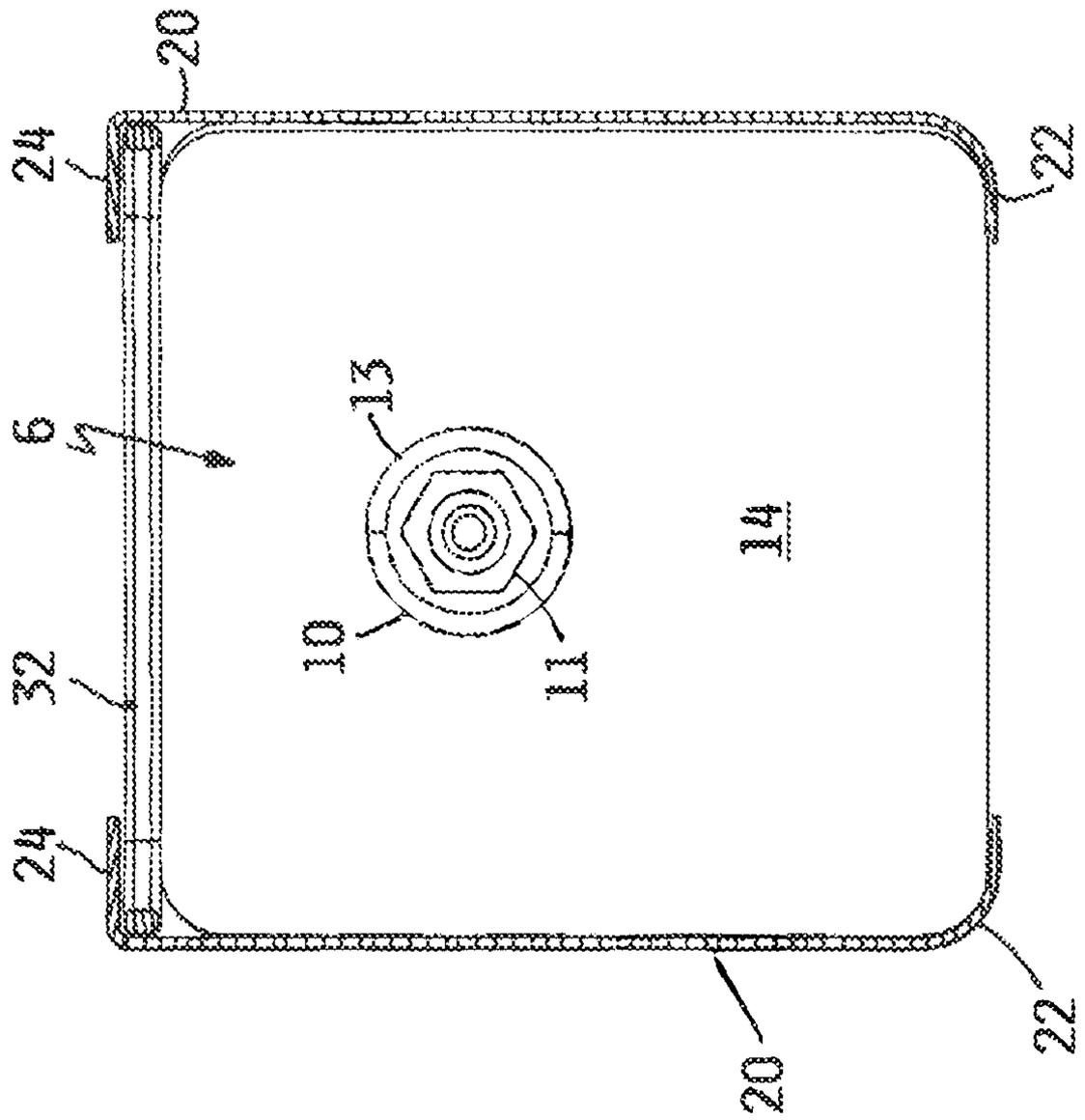

FIG. 7

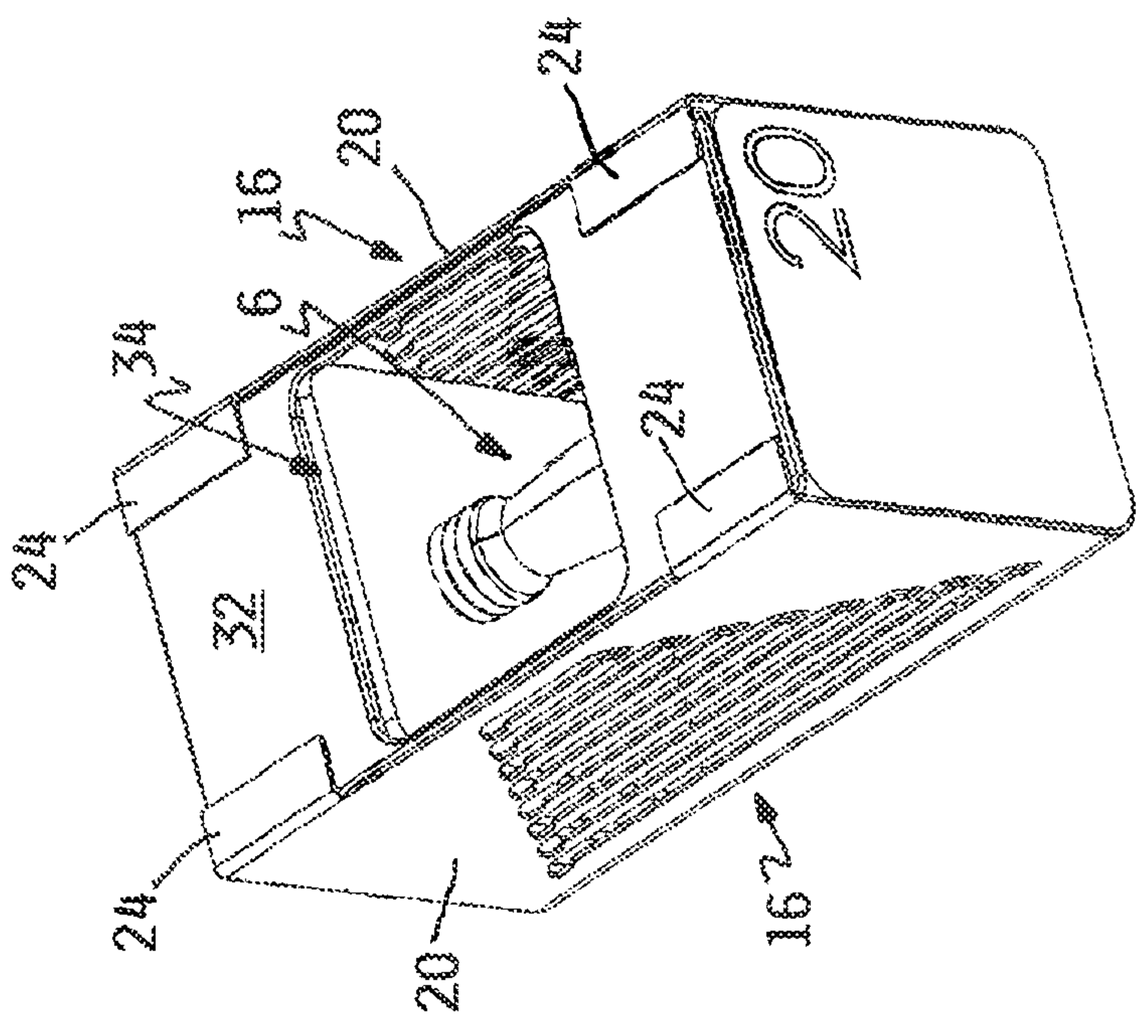

FIG. 6

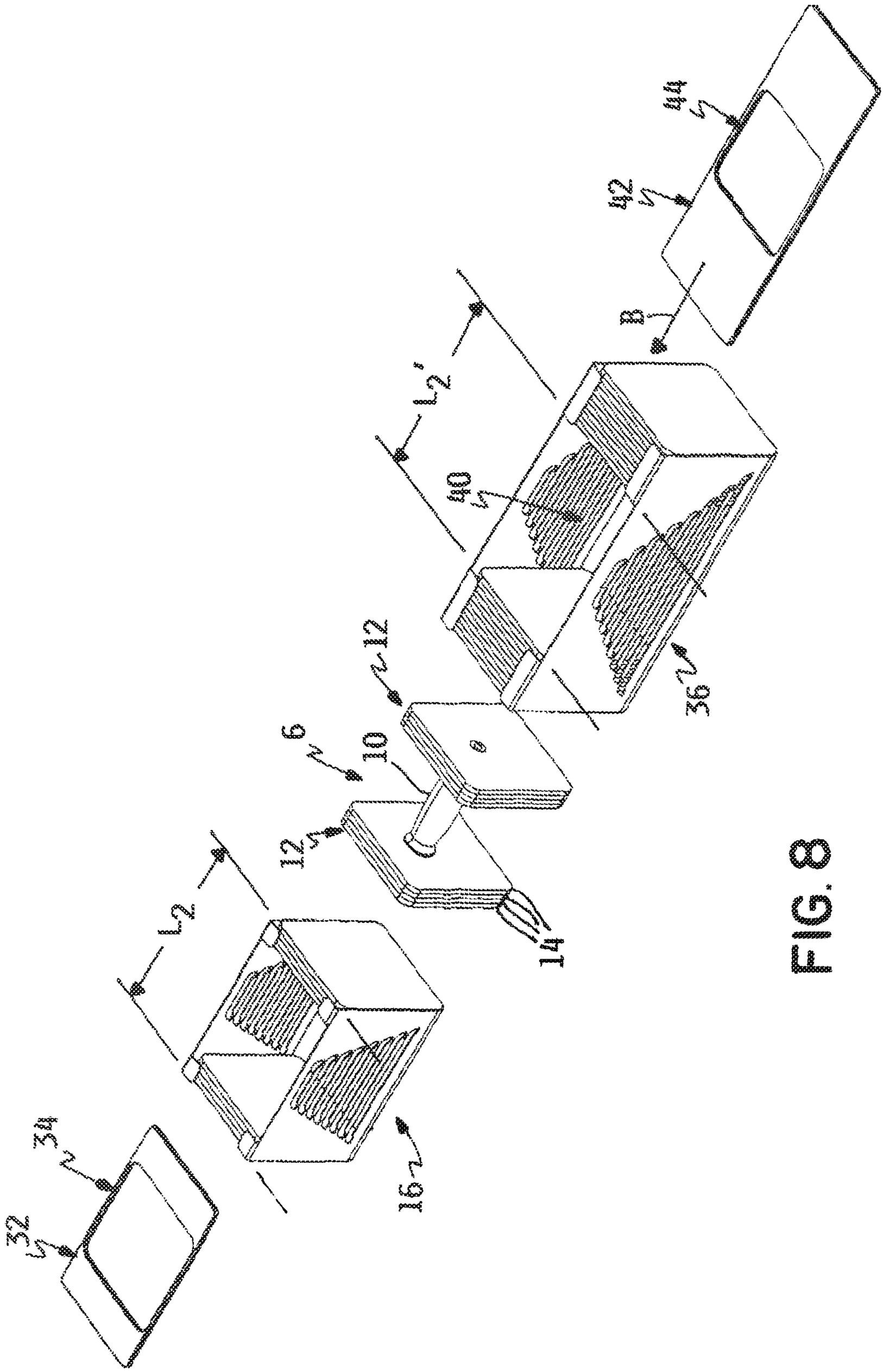

FIG. 8

SET OF DUMBBELLS

TECHNICAL FIELD

This invention relates to a set of dumbbells that is particularly suited for use in a multi-user exercise facility.

BACKGROUND OF THE INVENTION

FIG. **1** depicts a typical set of dumbbells that is often used in a multi-user exercise facility, such as a weight room for a sports team, a commercial fitness center or gym, and the like. In the dumbbell set shown in FIG. **1**, multiple pairs of dumbbells are provided in five pound increments within a range beginning at five pounds and ending at one hundred pounds. This permits a user to select a dumbbell pair to exercise with having a weight most suited to the user's age, general level of fitness and strength, and his or her exercise objectives. If the user is an average person who is interested in simply maintaining an adequate but not overly strong general level of fitness, the user would most likely exercise with weights in the lower part of the range. On the other hand, if the user is a person who is dedicated to body building, this type of user would most likely exercise with weights in the higher part of the range.

As a result, a dumbbell set used in a multi-user exercise facility must have a large range of weights available from very light to very heavy. Such a dumbbell set is very heavy and thus relatively costly to purchase. In the dumbbell set shown in FIG. **1**, the total weight of the set is 2,100 pounds. In addition, when the dumbbell set is stored on a rack as is typical as depicted in FIG. **1**, the dumbbell set requires significant floor space.

Moreover, for all its weight and size, only one person at a time can exercise with a pair of dumbbells having a given weight. For example, if there are three people who wish to use the thirty pound pair of dumbbells, two of them will have to wait and take their turns sequentially after the person who is currently using the pair finishes his or her exercise routine. Since multi-user exercise facilities have peak times during the day when they are most crowded, a demand by multiple users for a particular pair of dumbbells having a particularly desirable weight is quite common. This disadvantage could be mitigated to some extent if multiple sets of dumbbells were available to a user instead of just one set. However, many multi-user facilities cannot justify the purchase expense for acquiring multiple dumbbell sets or possess the floor space needed to accommodate multiple dumbbell sets. Thus, when one walks in to most multi-user exercise facilities, one will typically see only set of dumbbells if there are any at all.

SUMMARY OF THE INVENTION

One aspect of this invention relates to a dumbbell set which comprises a plurality of dumbbells of different weights. A plurality of adder weights is provided with each adder weight having a cavity that is sized to receive any one of the dumbbells. Any one dumbbell is capable of being dropped down into the cavity of any one of the adder weights. A slide retainer slides into a slideway on the any one adder weight to thereby secure the any one dumbbell to the any one adder weight.

BRIEF DESCRIPTION OF THE DRAWINGS

This invention will be described more fully in the following Detailed Description, when taken in conjunction with the following drawings, in which like reference numerals refer to like elements throughout.

FIG. **1** is a perspective view of a prior art racked set of dumbbells;

FIG. **2** is a perspective view of a racked set of dumbbells according to this invention;

FIG. **3** is a top view of the set of dumbbells of FIG. **2**;

FIG. **4** is an exploded perspective view of various components of the set of dumbbells of FIG. **2**, namely of one dumbbell, one first adder weight, and one first retainer;

FIG. **5** is a view similar to that of FIG. **4**, particularly illustrating the dumbbell having been inserted into the cavity provided in the first adder weight therefor but with the first retainer not having been inserted;

FIG. **6** is a view similar to that of FIG. **5**, but showing the first retainer inserted into the first adder weight to retain the dumbbell in the cavity in the first adder weight during an exercise activity;

FIG. **7** is a cross sectional view taken along lines **7-7** in FIG. **6**; and

FIG. **8** is an exploded perspective view of various components of the set of dumbbells of FIG. **2**, namely of one dumbbell, one first adder weight, one first retainer, one second adder weight, and one second retainer.

DETAILED DESCRIPTION

FIG. **2** depicts a dumbbell set **2** according to one embodiment of this invention stored on a rack **4**. Dumbbell set **2** comprises a plurality of dumbbells **6** which are depicted on the top shelf of rack **4**. There are four pairs **8** of dumbbells **6** in five pound increments within a range beginning at five pounds and ending at twenty pounds. The increments of weight between dumbbell pairs **8** and the range of weight covered by dumbbell pairs **8** may vary. By way of example, there could be four dumbbell pairs **8** in two and a half pound increments within a range beginning at two and a half pounds and ending at ten pounds, or eight dumbbell pairs **8** in two and a half pound increments within a range beginning at two and a half pounds and ending at twenty pounds. The word dumbbell is used herein in accordance with one of its customary definitions to mean a short bar or hand grip with weights at each end used for exercise or building muscles.

Each dumbbell **6** comprises a hand grip **10** coupled to a weight **12** at each end of hand grip **10**. The coupling between hand grip **10** and each weight **12** could be an integral one, such as a welded connection when the parts are made of steel or another metal. The coupling could also be a releasable one, such as a threaded connection. In addition, hand grip **10** could be a single piece in the form of an integral bar. Alternatively, hand grip **10** could comprise multiple pieces where an inner bar **11** is covered by an outer grip material **13** as shown in FIG. **7**, the grip material having different exterior contours or shapes if so desired.

Each weight **12** preferably, but not necessarily, comprises one or more weight plates **14**. Dumbbells **6** of greater weight preferably have progressively greater numbers of weight plates **14** attached to the ends of hand grip **10** to provide the additional mass needed as dumbbells **6** get progressively heavier. As shown in FIGS. **2** and **3**, each five pound dumbbell has a single weight plate **14** at each end of hand grip **10**, each ten pound dumbbell has two weight plates **14** at each end of hand grip **10**, each fifteen pound dumbbell has three weight plates **14** at each end of hand grip **10**, and each twenty pound dumbbell has four weight plates **14** at each end of hand grip **10**. Alternatively, a single weight **12** of constant thickness could be used at each end of hand grip **10**

with the variation in mass being provided by drilled out portions in the lightest dumbbell which drilled out portions progressively decrease in number and/or in size in the single weight plates of the progressively heavier dumbbells.

Referring now to FIG. **3**, each dumbbell **6** has a substantially common length denoted as L_1, the lengths of all dumbbells **6** are substantially equal to each other. In the depicted embodiment of the invention, this is achieved by stacking the additional weight plates **14** to the inside of the single weight plate **14** at each end of hand grip **10** of the lightest dumbbell, namely the five pound dumbbell shown in FIGS. **2** and **3**. This requires hand grip **10** of each progressively heavier dumbbell to become progressively slightly shorter to accommodate the progressive addition of the weight plates **14** to the inside of the outermost weight plate **14**. Thus, in FIG. **3**, the pair of five pound dumbbells at the far left of the top shelf of rack **4** has the longest hand grips **10** while the successive dumbbell pairs **8** as one proceeds from left to right have slightly shorter hand grips **10**. However, the shortest hand grip **19** in any dumbbell pair **8**, namely in the heaviest pair of twenty pound dumbbells **6** shown on the far right in FIG. **3**, is long enough to be comfortably gripped by a user with even very large hands. In the alternative embodiment described above where the variation in mass between the respective dumbbells **6** is accomplished by drilled out portions of a single constant thickness weight **12** instead of by using additional weight plates **14** of the same thickness, hand grips **10** may remain the same length in all dumbbells **6**.

Referring further to FIGS. **3** and **4**, one embodiment of dumbbell set **2** of this invention further comprises a plurality of first adder weights **16** which are depicted on the bottom shelf of rack **4**. There are four pairs **18** of first adder weights **16** in ten pound increments within a range beginning at twenty pounds and ending at fifty pounds. The increments of weight between first adder weight pairs **18** and the range of weight covered by first adder weight pairs **18** may vary. By way of example, there could be five pairs **18** of first adder weights **16** in five pound increments within a range beginning at twenty pounds and ending at forty pounds, or seven pairs of first adder weights in five pound increments within a range beginning at twenty pounds and ending at fifty pounds.

Referring now to FIGS. **4** and **7**, each first adder weight **16** comprises a pair of side walls **20**. Side walls **20** are identical to one another to allow side walls **20** to be manufactured from the same tooling. Each side wall **20** has an inwardly turned bottom flange **22** extending substantially along the entire length of side wall **20**. Each side wall **20** further has two inwardly turned front and rear upper tabs **24** at the front and rear ends of each side wall **20**. When assembled, side walls **20** of each first adder weight **16** are placed in a facing relationship to each other with bottom flanges **22** and upper tabs **24** on each side wall **20** extending inwardly towards one another. A decorative design **26** may be cut, etched or embossed if so desired onto the external face of each side wall **20**. Alternatively, each side wall **20** could be planar without any such design.

Referring further to FIG. **4**, side walls **20** of each first adder weight **16** are held together by a plurality of adder weight plates **14** at either end that are integrally fixed between side walls **20**. In the case of the twenty pound first adder weight shown in FIG. **4**, there are four weight plates **14** at each end with a couple of gaps g_1 and g_2 being disposed between some of the weight plates. Each adder weight plate **14** will be rigidly affixed, e.g. by welding when side walls **20** and weight plates are made of a metal such as steel, both to the internal surface of each side wall **20** and to bottom flanges **22** to rigidly join the two side walls **20** together and make first adder weight **16** a complete, assembled unit. When so assembled, upper tabs **24** on side walls **20** of first adder weight **16** are spaced above the plane defined by the upper edges of weight plates **14** to form a slideway **28** therebetween.

The innermost weight plate **14** at one end of first adder weight **16** shown in FIG. **4** is spaced from the innermost weight plate **14** at the other end of first adder weight **16** by a length that is denoted as L_1 to form a cavity **30** in the middle portion of first adder weight **16**. The cavity length L_1 is slightly longer than length L_1 of each of dumbbells **6**, e.g., 0.025 to 0.075 inches longer, to provide just enough clearance to drop any one dumbbell **7** down into cavity **30** provided in the middle portion of first adder weight **16**. FIG. **4** shows one dumbbell **6** located above cavity **30** of first adder weight **16**. Dumbbell **6** will be aligned with cavity **30** and then dropped down into cavity **30** by lowering dumbbell **6** in the direction of the arrow A in FIG. **4**. FIG. **5** shows dumbbell **6** having been dropped down into cavity **30** to be snugly received in cavity **30** between the innermost weight plates **14** that define the opposite ends of cavity **30** and between side walls **20** of first adder weight **16**. The cavity lengths $L_{1'}$ in all of first adder weights **16** are substantially equal to one another so that any dumbbell **6** could be dropped down into cavity **30** of any first adder weight **16**.

As shown in FIG. **3**, each first adder weight has a substantially common length denoted as L_2. In order to make the successive pairs of first adder weights **16** progressively heavier than the lightest first adder weight **16** depicted in FIG. **4**, gaps g_1 and g_2 in the lightest first adder weight **16** are progressively filled in with additional weight plates **14** to provide the progressively heavier weights **16**. Thus, in the heaviest first adder weight **16**, namely the fifty pound first adder weight **16**, gaps g_1 and g_2 have been entirely filled in such that the weight plates at either end of the fifty pound first adder weight are disposed in a solid stack. Other ways of accomplishing the weight variation in first adder weights **16** while keeping the length L_2 of first adder weights **16** substantially the same length and while keeping the length $L_{1'}$ of cavities **30** in first adder weights **16** substantially the same length could be used, such as use of drilled out portions in a single thick weight plate at each end of first adder weight **16** as described above with respect to dumbbells **6**.

Turning to FIG. **5**, each first adder weight **16** includes a first retainer **32** in the form of a substantially planar and rigid member, preferably but not necessarily made of metal, having a central window **34**. First retainer **32** has substantially the same length L_2 as first adder weight **16** with which it is used. Window **34** has a length L_3 that is shorter, e.g. 0.25 to 0.75 inches shorter, than the length L_1 of each dumbbell **6**. First retainer **32** can be installed on first adder weight **16** by sliding first retainer **32** in the direction of the arrow B in FIG. **5** into and along the length of slideway **28** formed by the inwardly turned upper tabs **24** of first adder weight **16**. One end of first retainer **32** may include an upwardly extending tab (not shown) which the user can use as a handle to slide first retainer **32** in the direction of the arrow B. The same end of first retainer **32** may have a downwardly extending flange (not shown) that abuts against one end of first adder weight **16** when first retainer **32** has been fully slid into place in slideway **28**.

As shown in FIG. **6**, when first retainer **32** is fully inserted into the slideway, first retainer **32** will overlie the weight stacks at either end of first adder weight **16** and overlie at least the outermost weight plate of each dumbbell **6** to retain

the dumbbell within cavity **30** of first adder weight **16**. Window **34** will be positioned over hand grip **10** of the dumbbell to allow the user to reach down through window **34** to grip hand grip **10**. Now, when the user lifts up on hand grip **10** to exercise with dumbbell **6**, the effective mass of dumbbell **6** has been increased by the weight of first adder weight **16** coupled to dumbbell **6**. In the example shown in FIGS. **4-6**, five pound dumbbell **6** has now been made into a twenty five pound dumbbell since five pound dumbbell **6** was dropped into a twenty pound first adder weight **16**. Obviously, five pound dumbbell **6** could have been made into a thirty five pound dumbbell, a forty five pound dumbbell, or a fifty five pound dumbbell if the five pound dumbbell **6** had been dropped into one of the progressively heavier first adder weights **16**.

In addition, in one embodiment of dumbbell set **2** of this invention, a pair **38** of second adder weights **36** is provided, namely the pair **38** of forty pound second adder weights **36** shown in FIGS. **2** and **3** on the far right of the lower shelf of rack **4**. Referring now to FIG. **8**, each second adder weight **36** is substantially the same in construction as first adder weight **16** except that it has a cavity **40** with a length L_2, that is slightly longer, e.g., 0.025 to 0.075 inches longer, than the length L_2 of each first adder weight **16**. Thus, when a selected dumbbell **6** has been inserted into cavity **30** in first adder weight **16** and is retained therein by first retainer **32**, that entire assemblage thereof as shown in FIG. **6** can then be dropped down into cavity **40** in any selected second adder weight **36**. Then, a second retainer **42** for second adder weight **36** can be moved in the direction of the arrow B in FIG. **8** to slide into the slideway formed by tabs **24** of second adder weight **36** to couple second adder weight **36** to the assemblage comprising dumbbell **6**, first adder weight **16**, and first retainer **32**. This increases the weight of such assemblage by the weight provided by second adder weight **36**. Second adder weight **36** has a window **44** in second retainer **40** that is sized similarly to window **34** in first retainer **32** to continue to provide access to hand grip **10** of dumbbell **6**.

Instead of having just one pair **38** of second adder weights **36**, a plurality of pairs **38** of second adder weights **36** could be provided, e.g. a pair of thirty pound second adder weights, a pair of forty pound second adder weights, and a pair of fifty pound adder weights, if so desired. In each second adder weight **36**, cavity **40** will have substantially the same length L_2, as described above. Second adder weights **36** need not have the same length as they get heavier since they will not need to be nested in a cavity of a third adder weight. Thus, progressively heavier second adder weights **36** could be manufactured by stacking weight plates to the outside of the each end of the lightest second adder weight **36** such that each heavier second adder weight **36** increases in length as it gets heavier.

While an embodiment in which first adder weights **16** and one or more longer second adder weights are both used, the longer second adder weights could be dispensed with if so desire. In such an alternative, first adder weights **16** could also grow in length as first adder weights **16** get heavier rather than retaining substantially a common length.

Each embodiment of dumbbell set **2** provides readily apparent advantages over a traditional dumbbell set as depicted in FIG. **1**. First, the total weight of the embodiment of dumbbell set **2** as depicted in FIG. **2** comprises a total of only 460 pounds, only 22% of the weight of a traditional set of dumbbells having comparable functionality. Thus, for approximately the same cost as buying one traditional set of dumbbells, an owner or operator of a multi-user exercise facility could buy four dumbbell sets **2** according to this invention. In addition, each dumbbell set **2** takes up less floor space than the single traditional dumbbell set. Thus, it would be possible for an owner or operator of a multi-user exercise facility to space the extra dumbbell sets **2** that he or she could buy around the exercise facility in widely separated spots. This would allow users to have a dumbbell set **2** close to other machines or areas of the exercise facility where they would conduct other exercises without requiring such a user to trek all the way across the exercise facility to reach a dumbbell set **2**.

Yet, despite the substantial reduction in weight and all the attendant cost savings and placement opportunities described above, each dumbbell set **2** of this invention allows a user to exercise at each weight in five pound increments in the range from five to one hundred pounds. For example, the five, ten, fifteen and twenty pound increments are met by use of the respective dumbbells **6** shown on the top shelf of rack **4** in FIG. **2**. The twenty five, thirty five, forty five, and fifty five pound increments are met when the five pound dumbbell **6** is dropped down and used with an individual one of first adder weights **16**, respectively. The thirty, forty, fifty, and sixty pound increments are met when the ten pound dumbbell **6** is dropped down and used with an individual one of first adder weights **16**, respectively. All of the remaining increments, namely sixty five pounds through one hundred pounds, are met when the forty pound second adder weight **36** is added to each of the increments produced by the dumbbell/first adder weight combinations set forth in the preceding two sentences. For example, the sixty five pound increment is met when the five pound dumbbell/twenty pound first adder weight assembly is dropped down into and used with the forty pound second adder weight **36**, the seventy pound increment is met when the ten pound dumbbell/twenty pound first adder weight assembly is dropped down into and used with the 40 pound second adder weight **36**, and so on. Thus, dumbbell set **2** of this invention allows a user to exercise in five pound increments from 5 to 100 pounds but weighs only 460 pounds versus the 2100 pounds that a traditional set of dumbbells requires to provide the same functionality.

Another advantage of dumbbell set **2** of this invention is the mix and match capabilities provided by the array of differently weighted dumbbells **6** and the differently weighted first adder weights **16** and/or second adder weights **36**. This allows multiple users to exercise with different weights at exactly the same time without the second user having to wait until the first user finishes. For example, assume two people seek to exercise using a pair of thirty five pound dumbbells. This can be achieved by the first user nesting the pair of fifteen pound dumbbells **6** into the pair of twenty pound first adder weights **16** and by the second user coupling the pair of five pound dumbbells **6** into the pair of thirty pound first adder weights **16**. Neither user has to wait for the other one to finish. This is a further advantage of this invention compared to a traditional set of dumbbells.

Moreover, owners and operators of different exercise facilities can tailor or adjust the mix of dumbbells **6** and first adder weights **16** relative to one another and relative to second adder weights **36** if any are even used to better meet the needs of their clientele. Suppose the exercise facility is in one in a senior living exercise facility having elderly people who never need dumbbells that weigh above 30 pounds. In that scenario, the owner or operator of the exercise facility might order a set of dumbbells having eight pairs of dumbbells **6** in two and a half pound increments within the range from two and a half pounds to ten pounds,

e.g., a double of set of pairs of dumbbells weighing **2** and a half pounds, five pounds, seven and a half pounds and ten pounds, respectively, and then provide five pairs of first adder weights in five pound increments within the range from ten pounds to twenty pounds, e.g. two pairs of ten pound first adder weights **16**, two pairs of fifteen pound first adder weights **16**, and one pair of twenty pound first adder weights **16**). Such a set would weigh a total of only one hundred twenty pounds.

Despite its light weight, the set described in the preceding paragraph provides even more opportunity for multiple users to exercise at the same weight. For example, assume that four users wish to exercise with twenty pound dumbbells at the same time. This can be done in the custom designed set described above by coupling the two pairs of ten pound dumbbells **6** to the two pairs of ten pound first adder weights **16** and by coupling the two pairs of five pound dumbbells **6** to the two pairs of fifteen pound first adder weights **36**, thereby accommodating a total of four users at once. By being able to tailor how many dumbbells **6** one orders and the distribution of the weight increments and weight ranges of dumbbells **6** as well as the numbers and the distributions of the weight increments and weight ranges of first adder weights **16** and second adder weights **36** if second adder weights are even desirable, one can optimize dumbbell set **2** of this invention for a particular clientele. Obviously, for a dumbbell set **2** for professional athletes or body building enthusiasts, the owner or operator of the exercise facility serving them would skew the same distributions of dumbbells and the adder weights to the heavy side rather than the light side.

Various modifications of this invention will be apparent to one of ordinary skill in the art. Thus, the scope of the invention shall not be limited to the details of the various embodiments disclosed herein, but only by the appended claims.

What is claimed is:

1. A dumbbell set, which comprises:

(a) a dumbbell;

(b) a first adder weight having a first gap that is sized to receive the dumbbell, wherein the dumbbell is capable of being dropped into the first gap of the first adder weight; and

(c) a substantially planar first slide retainer that secures the dumbbell to the first adder weight;

wherein the first slide retainer is located vertically above the dumbbell when the dumbbell is received in the first gap of the first adder weight and the first slide retainer is slid into a first slideway.

2. The dumbbell set of claim **1**, wherein the first adder weight comprises a plurality of first adder weight plates, and wherein the plurality of first adder weight plates is connected.

3. The dumbbell set of claim **1**, wherein the first slide retainer has a first window therein to allow a user to reach through the first slide retainer and grip a hand grip of the dumbbell.

4. The dumbbell set of claim **3**, wherein the first window substantially completely encircles a wrist or forearm of the user as the user grips the hand grip of the dumbbell.

5. The dumbbell set of claim **1**, wherein the first slide retainer is inserted into the first slideway in a direction parallel to an axis of elongation of a hand grip of the dumbbell.

6. The dumbbell set of claim **1**, further comprising:

(d) a second adder weight having a second gap that is sized to receive the dumbbell with the first adder weight secured thereto, wherein the dumbbell and first adder weight are capable of being dropped into the second gap of the second adder weight; and

(e) a substantially planar second slide retainer that secures the dumbbell and the first adder weight to the second adder weight.

7. The dumbbell set of claim **6**, wherein the second slide retainer includes a second window therein to allow a user to reach through the second slide retainer and grip a hand grip of the dumbbell.

8. The dumbbell of claim **6**, wherein the second slide retainer is located vertically above the first slide retainer when the second slide retainer secures the dumbbell and the first adder weight to the second adder weight.

9. The dumbbell set of claim **8**, wherein the second slide retainer has a length that is substantially the same as a length of the second adder weight.

10. A dumbbell set, which comprises:

(a) a dumbbell;

(b) a first adder weight comprising a plurality of first adder weight plates, the first adder weight having a first gap between the first adder weight plates that is sized to receive the dumbbell, wherein the dumbbell is capable of being dropped into the first gap of the first adder weight;

(c) a first slide retainer that slides into a first slideway on the first adder weight to thereby secure the dumbbell to the first adder weight;

(d) a second adder weight comprising a plurality of second adder weight plates, the second adder weight having a second gap between the second adder weight plates that is sized to receive the dumbbell with the first adder weight secured thereto, wherein the dumbbell and first adder weight are capable of being dropped into the second gap of the second adder weight; and

(e) a second slide retainer that slides into a second slideway on the second adder weight to thereby secure the dumbbell and the first adder weight to the second adder weight;

wherein the dumbbell when received in the first gap of the first adder weight rests upon a lower support surface provided adjacent a bottom of the second gap of the first adder weight.

11. The dumbbell set of claim **10**, wherein the plurality of first adder weight plates is connected.

12. The dumbbell set of claim **10**, wherein the plurality of second adder weight plates is connected.

13. The dumbbell set of claim **10**, wherein the first slide retainer is located vertically above the dumbbell when the dumbbell is received in the first gap of the first adder weight and the first slide retainer is slid into the first slideway.

14. The dumbbell set of claim **10**, wherein the first slide retainer includes a first window therein to allow a user to reach through the first slide retainer and grip a hand grip of the dumbbell, and wherein the second slide retainer includes a second window therein to allow the user to reach through the second slide retainer and grip the hand grip.

15. The dumbbell set of claim **14**, wherein the first window and the second window substantially completely encircle a wrist or forearm of the user as the user grips the hand grip of the dumbbell.

16. The dumbbell set of claim **10**, wherein the first slide retainer is inserted into the first slideway in a direction parallel to an axis of elongation of a hand grip of the dumbbell.

17. The dumbbell set of claim **10**, wherein the first slide retainer has a length that is substantially the same as a length

of the first adder weight, and wherein the second slide retainer has a length that is substantially the same as a length of the second adder weight.

18. The dumbbell set of claim **10**, wherein the first slide retainer is selectively engageable by a user in the first slideway and, when so engaged, is positioned above the lower support surface to hold the dumbbell against the lower support surface of the first adder weight.

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